

Figure 1

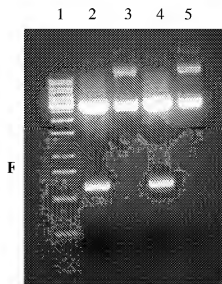


Figure 2

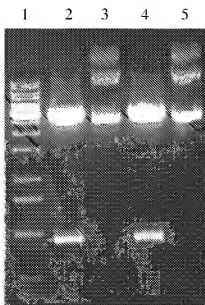


Figure 3A

SEQ ID NO: 5 EGRAELARKLEATASAKNLVEQDXXXXXXXXXXXXXIAEVRAELAGVLEATAAAKTAV 99
E RAAELA +LEATA+AK+ EQD +E RAAELA LEATAAAK +

SEQ ID NO: 12 EERAAELASQLEATAAAKSSAEQDRENTATLEQQLRSEARAELASQLEATAAAKMSA 771

SEQ ID NO: 5 EQERERTRAALXXXXXXXXXXXXXXXXXXXXXKTSVEQXXXXXXXXXXXXXXXXXXXX 159
EQ+RE TRA L K S EQ

SEQ ID NO: 12 EQDRENTATLEQQLRDSEERAAELASQLESTTAAKMSAEQDRESTRATLEQQLRDSEER 831

SEQ ID NO: 5 XXXXXXXXKSTAAVKSAMEQDRENTAT 187
+ST A K + EQDRE+TRAT

SEQ ID NO: 12 AAELASQLESTTAAKMSAEQDRESTRAT 859

Figure 3B

SEQ ID NO: 5 EQEREKTRTALE-----GRAELARKLEATASAKNLVEQDXXXXXXXXXXXXXIAEVR 81
EQ+RE TR LE RAAELA +LEATA+AK EQD +E R

SEQ ID NO: 12 EQDRENTATLEQQLRSEARAELASQLEATAAAKMSAEQDRENTATLEQQLRDSEER 792

SEQ ID NO: 5 AAELAGVLEATAAAKTAVEQERERTRAALXXXXXXXXXXXXXXXXXXXXXKTSVEQX 141
AAELA LE+T AAK + EQ+RE TRA L K S EQ

SEQ ID NO: 12 AAELASQLESTTAAKMSAEQDRESTRATLEQQLRDSEERAAELASQLESTTAAKMSAEQD 852

SEQ ID NO: 5 XXXXXXXXXXXXXXXXXXXXXXXXKSTAAVKSAMEQDRENTAT 187
+ST A K + EQDRE+TRAT

SEQ ID NO: 12 RESTRATLEQQLRSEERAAELASQLESTTAAKMSAEQDRESTRAT 898

Figure 3C

SEQ ID NO: 5 EQEREKTRTALEG-----RAELARKLEATASAKNLVEQDXXXXXXXXXXXXXIAEVR 81
EQ+RE TR LE RAAELA +LE+T +AK EQD +E R

SEQ ID NO: 12 EQDRENTATLEQQLRDSEERAELASQLESTTAAKMSAEQDRESTRATLEQQLRDSEER 831

SEQ ID NO: 5 AAELAGVLEATAAAKTAVEQERERTRAAALXXXXXXXXXXXXXXXXXXXXXKSVEQX 141
AAELA LE+T AAK + EQ+RE TRA L K S EQ

SEQ ID NO: 12 AAELASQLESTTAAKMSAEQDRESTRATLEQQLRSESEERAELASQLESTTAAKMSAEQD 891

SEQ ID NO: 5 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXKSTA AVKSAMEQDRENTA 186
++TAA KS+ EQDRENTA

SEQ ID NO: 12 RESTRATLEQQLRDSEERAELASQLEATAAAKMSAEQDRENTA 936

Figure 3D

SEQ ID NO: 5 EGRAELARKLEATASAKNLVEQDXXXXXXXXXXXXXIAEVRAAELAGVLEATAAAKTAV 99
E RAAELA +LEATA+AK+ EQD +E RAAELA LEATAAAK +

SEQ ID NO: 13 EERAELASQLEATAAAKSSAEQDRENTATLEQQLRSEARAELASQLEATAAAKMSA 771

SEQ ID NO: 5 EQERERTRAAALXXXXXXXXXXXXXXXXXXXXXKSVEQXXXXXXXXXXXXXXXXXXXXX 159
EQ+RE TRA L K S EQ

SEQ ID NO: 13 EQDRENTATLEQQLRDSEERAELASQLESTTAAKMSAEQDRESTRATLEQQLRDSEER 831

SEQ ID NO: 5 XXXXXXXXKSTA AVKSAMEQDRENTAT 187
+ST A K + EQDRE+TRAT

SEQ ID NO: 13 AAELASQLESTTAAKMSAEQDRESTRAT 859

Figure 3E

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SEQ ID NO: 5  EQEREKTRTALE-----GRAAELARKLEATASAKNLVEQDXXXXXXXXXXXXXIAEVR 81
              EQ+RE TR  LE          RAAELA +LEATA+AK  EQD              +E R
SEQ ID NO: 13 EQDRENTRATLEQQLRDSEERAELASQLEATAAAKMSAEQDRENTRATLEQQLRDSEER 792

SEQ ID NO: 5  AELAGVLEATAAAKTAVEQERERTRAALXXXXXXXXXXXXXXXXXXXXXKTSVEQX 141
              AAELA  LE+T  AAK + EQ+RE TRA L              K S EQ
SEQ ID NO: 13 AELASQLESTTAAKMSAEQDRESTRATLEQQLRDSEERAELASQLESTTAAKMSAEQD 852

SEQ ID NO: 5  XXXXXXXXXXXXXXXXXXXXXXXXXXXXKSTAAVKSAMEQDRENTRAT 187
              +ST A K + EQDRE+TRAT
SEQ ID NO: 13 RESTRATLEQQLRDSEERAELASQLESTTAAKMSAEQDRESTRAT 898

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Figure 3F

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SEQ ID NO: 5  EQEREKTRTALE-----RAAELARKLEATASAKNLVEQDXXXXXXXXXXXXXIAEVR 81
              EQ+RE TR  LE          RAAELA +LE+T +AK  EQD              +E R
SEQ ID NO: 13 EQDRENTRATLEQQLRDSEERAELASQLESTTAAKMSAEQDRESTRATLEQQLRDSEER 831

SEQ ID NO: 5  AELAGVLEATAAAKTAVEQERERTRAALXXXXXXXXXXXXXXXXXXXXXKTSVEQX 141
              AAELA  LE+T  AAK + EQ+RE TRA L              K S EQ
SEQ ID NO: 13 AELASQLESTTAAKMSAEQDRESTRATLEQQLRDSEERAELASQLESTTAAKMSAEQD 891

SEQ ID NO: 5  XXXXXXXXXXXXXXXXXXXXXXXXXXXXKSTAAVKSAMEQDRENTRA 186
              ++TAA KS+ EQDRENTRA
SEQ ID NO: 13 RESTRATLEQQLRDSEERAELASQLEATAAAKSAEQDRENTRA 936

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Figure 4

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SEQ ID NO: 14 121 GAGCAGCAGCTTCGCGAATCCGAGGCGCGCTGCGGAGCTGGCGAGCCAGCTGGAGGCC 180
SEQ ID NO: 4 1 ----- 1
SEQ ID NO: 15 1 GAGCAGCAGCTTCGTAATCCGAGGCGCGCTGCGGAGCTGAAAGCCGAGCTGGAGGCC 60

SEQ ID NO: 14 181 ACTGCTGCTGCGAAGATGTCAGCGGAGCAGGACCGCGAGAACACGAGGGCCACGCTAGAG 240
SEQ ID NO: 4 1 -----SAG 3
SEQ ID NO: 15 61 ACTGCTGCTGCGAAGACGTCGGTGGAGCAGGAGCGTGAGAAGAC-----GAG 107

SEQ ID NO: 14 241 CAGCAGCTTCGCTGACTCCGAGGCGCGCGCTGCGGAGCTGCGGAGCCAGCTGAGAGTCCCT 300
SEQ ID NO: 4 64 CAGCAGCTTCGCTGACTCCGAGGCGCGCGCTGCGGAGCTGATGCCGAAGTTGAGGCGACT 63
SEQ ID NO: 15 108 GAGCGCTCTG-----GAGGCGCGCTGCGGAGCTGCTCCAGAACGAGGCGCT 159

SEQ ID NO: 14 301 ACTGCTGCGAAGATGTCAGCGGAGCAGGACCGCGAGAGCACGAGGGCCACGCTGAGAGG 360
SEQ ID NO: 4 64 GCTGCTGCGAAGTCTCGCGCGGAGCAGGACCGCGAGAACACGAGGGCCACGCTGAGAGG 123
SEQ ID NO: 15 160 GCTTCTGCGAAGATTTGCTAGAGCAGGACCGCGAGAGGCGAGGGCCACCTGAGAGG 219

SEQ ID NO: 14 361 CAGCTTCGCTGACTCCGAGGAGCGCGCTGCGGAGCTGCGGAGCCAGCTGGAGTCCACTTCT 420
SEQ ID NO: 4 124 CAGCTTCGCGAATCCGAGGAGGCGCTGCGGAGCTGAAAGGCCACGCTGGAGTCCACTTCT 183
SEQ ID NO: 15 220 CGACTTCGTATTTCGAGGCGCGCTGCGGAGCTGCGAGGAGTCTGCGAGGCCACTTCTGCT 279

SEQ ID NO: 14 421 GCTGCGAAGATGTCGCGGAGCAGGACCGCGAGAGCACGAGGGCCACGCTGAGCAGCAG 480
SEQ ID NO: 4 184 GCTGCGAAGATGTCGCGGAGCAGGACCGCGAGAGCACGAGGGCCGCGCTGAGCAGCAG 243
SEQ ID NO: 15 280 GCTGCGAAGATGTCGCGGAGCAGGAGCTGAGAGGCGAGGGCCGCGCTGAGCAGCAG 339

SEQ ID NO: 14 481 CTTCGCGAATCCGAGGAGCGCGCTGCGGAGCTGGCGAGCCAGCTGGATCCACTTCTGCT 540
SEQ ID NO: 4 244 CTTCGCGAATCCGAGGAGCGCGCTGCGGAGCTGGCGAGCCAGCTGGAGGCCACTTCTGCT 303
SEQ ID NO: 15 340 CTCGCGAATCCGAGGCGCGCTGCGGAGCTGGCTGCGAGCTGGAGGCGCTGCTGCG 399

SEQ ID NO: 14 541 GCGAAGATGTCGCGGAGCAGGAGCGCGAGAGCACGAGGGCCACGCTAGAGCAGCAGGCT 600
SEQ ID NO: 4 304 GCGAAGATGTCGCGGAGCAGGAGCGCGAGAGCACGAGGGCCACGCTAGAGCAGCAGGCT 363
SEQ ID NO: 15 400 GCGAAGATGTCGCGGAGCAGGAGCTGAGAGAGCACGAGGGCCACCTGAGAGAGCGCTG 459

SEQ ID NO: 14 601 CCGTACTCCGAGGAGCGCGCTGCGGAGCTGGCGAGCTGAGTGGAGGCTACTGCTGCTCG 660
SEQ ID NO: 4 364 CCGGAATCCGAGGAGCGCGCTGCGGAGCTGGCGAGTGGAGTGGAGTGCCTACTGCTGCTCG 423
SEQ ID NO: 15 460 CCGCTCCCTGAGTCCGCGCTGCGGAGCTGGCGAGGCGCTGAGAGGCTACTGCTGCTGCT 519

SEQ ID NO: 14 661 AAGTGTGCGCGGAGCAGGACCGCGAGAACACGAGGGCCACCTTGAGCAGCAGCTTCGT 720
SEQ ID NO: 4 424 AAGTGTGCGCGGAGCAGGACCGCGAGAACACGAGGGCCACG----- 465
SEQ ID NO: 15 520 AAGTCCCGATGGAGCAGGACCGCGAGAACACGAGGGCCACG----- 561

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Figure 5

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SEQ ID NO: 16 1  LEQQLRESEEPRAAEIASOLEATAAAKSSAEQDRENTATLEQQLRESEARAELASQLEA 60
SEQ ID NO: 6 1  -EQQLRDSEEPRAAEIMRIEATAAAKSSAEQDRENTATLEQQLRESEEHAAELKAKLES 59
SEQ ID NO: 5 1  -EQQLRESEARAELKAKLEATAAAKSSVEQDRENTATLEG-----RAAELARKLEA 52

SEQ ID NO: 16 61  TAAKMSAEQDRENTATLEQQLRDSEEPRAAEIASQLESTAAKMSAEQDRESTRATLEQ 120
SEQ ID NO: 6 60  TAAKMTSAEQDRENTATLEQQLRDSEEPRAAEIASQLEATAAAKSSAEQDRENTATLEQ 119
SEQ ID NO: 5 53  TAAKSNLVEQDRENTATLEQLRLIEVRAAEIAGVLEATAAAKTSVEQDRENTATLEQ 112

SEQ ID NO: 16 121  QLRESEEPRAAEIASQLESTTAAKMSAEQDRESTRATLEQQLRESEARAELASQLESTTA 180
SEQ ID NO: 6 120  QLRESEEPRAAEIASQLESTTAAKSSAEQDRENTAT----- 155
SEQ ID NO: 5 113  QLRESEARAELASQLESTAAKTSVEQDRENTATLEERLRLAEVRAAEIARLKSTAA 172

SEQ ID NO: 16 181  AKMSAEQDRESTRATLEQQLRDSEARAELASQLEATAAAKSSAEQDRENTATLEQQLR 240
SEQ ID NO: 6 155  ----- 155
SEQ ID NO: 5 173  VKSAMEQDRENTAT----- 187

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Figure 6

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SEQ ID NO: 16 1  LEQQLRESEARAELASQLEATAAAKSSAEQDRENTATLEQQLRESEARAELASQLEA 60
SEQ ID NO: 5 1  -----EQQLRESEARAELAKLEA 20

SEQ ID NO: 16 61  TAAKMSAEQDRENTATLEQQLRDSEEPRAAEIASQLESTTAAKMSAEQDRESTRATLE 120
SEQ ID NO: 5 21  TAAKTSVEQDRENTATLEG-----RAAELARKLEATAAKSNLVEQDRENTATLEQ 73

SEQ ID NO: 16 121  QLRDSEEPRAAEIASQLESTTAAKMSAEQDRESTRATLEQQLRESEEPRAAEIASQLESTTA 180
SEQ ID NO: 5 74  RLRLIEVRAAEIAGVLEATAAAKTSVEQDRENTATLEQQLRESEEPRAAEIASQLESTTA 133

SEQ ID NO: 16 181  AKMSAEQDRESTRATLEQQLRDSEEPRAAEIASQLEATAAAKSSAEQDRENTATLEQQLR 240
SEQ ID NO: 5 134  AKTSVEQDRENTATLEQLRLIEVRAAEIAGVLEATAAAKSSAEQDRENTAT----- 187

```

Figure 7

SEQ ID NO: 6 1 EQQLRSEPRAAELMRKLEATAAANGSNEQ----- 30

SEQ ID NO: 5 1 EQQLRSEPRAAELMRKLEATAAANGSNEQEREKTRTALEGRAAELARKLEATASAKNLV 60

SEQ ID NO: 6 30 --DRENRATLEEQQLRSEPRAAELMRKLEATAAANGSNEQEREKTRTALEGRAAELARKLEATASAKNLV 88

SEQ ID NO: 5 61 EQDRENRATLEEQQLRSEPRAAELMRKLEATAAANGSNEQEREKTRTALEGRAAELARKLEATASAKNLV 120

SEQ ID NO: 6 89 --ELAAOLEATAAAKSSAEQDRENRATLEEQQLRSEPRAAELMRKLEATAAANGSNEQEREKTRTALEGRAAELARKLEATASAKNLV 148

SEQ ID NO: 5 121 ELAAOLEATAAAKSSAEQDRENRATLEEQQLRSEPRAAELMRKLEATAAANGSNEQEREKTRTALEGRAAELARKLEATASAKNLV 180

SEQ ID NO: 6 149 RENTRAT 155

SEQ ID NO: 5 181 RENTRAT 187

Figure 8

1 10 20 30 39

KEEQQLRDSSEPRAAELMRKLEATAAANGSNEQEREKTRTAL
 GRAAELARKLEATASAKNLVQDRENRATLEERLRIS
 AVGVKSAVTSMEANAAQQE
 SASAQSS

SEQ ID NO: 5

Figure 9

1 10 20 30 39

LEEQQLRDSSEPRAAELMRKLEATAAANGSNEQEREKTRTAL
 REAHKAQSTAA

SEQ ID NO: 6

Figure 10

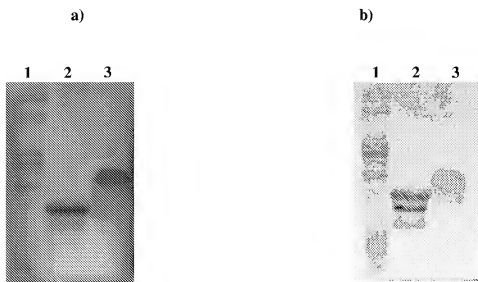


Figure 11

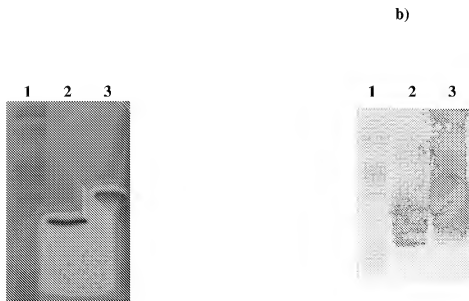


Figure 12

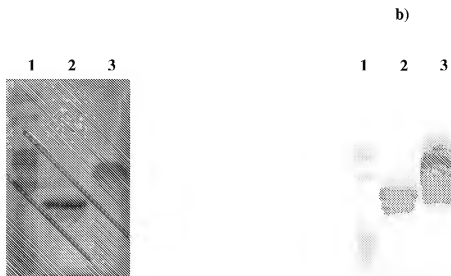


Figure 13

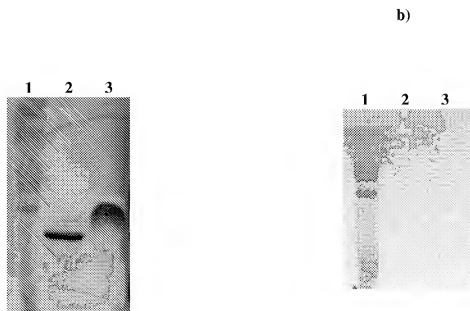


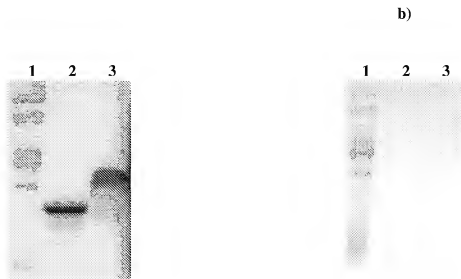
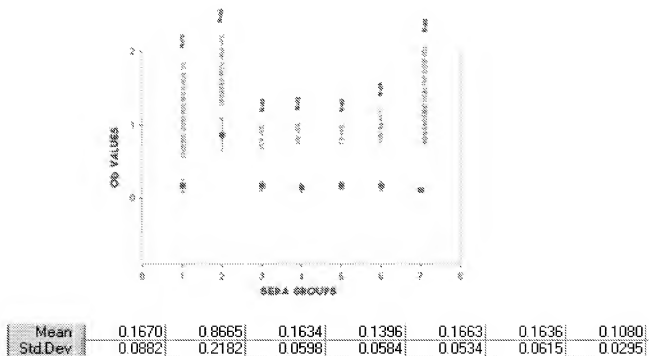
Figure 14**Figure 15**

Figure 16